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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
PEYTON, TAMMARA R	
ART UNIT	PAPER NUMBER

2182
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/759,867

Applicant(s)

MARSHALL, DANIEL R.

Examiner

Tammara R Peyton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Objections

1. Claims 1 and 15 are objected to because of the following informalities:
The claim states "an atomic resolution storage memory component" and later states in the same claim "the memory component". For sake of consistency in the claim language and to overcome possible insufficient antecedent basis limitation in the claim, Examiner suggests the use of "the atomic resolution storage memory component." Appropriate correction is required.
2. Claim 12 is objected to because of the following informalities: the word "radiofrequency" should be changed to "radio frequency". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. Claim 28 states "the ultra-high capacity storage device". There is insufficient for this limitation in the claim.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4-7, and 9-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Gioscia et al.* (WO 00/30117) and *Gibson et al.* (US 5,557,596).

5. As per claim 1, *Gioscia* teaches a method of handling information comprising:

- storing electronically readable information into a portable storage module (personal music device [PMD], 103, Fig.1) including a memory component (110, Fig.1); and
- recalling selectively a portion of the information from the memory component of the portable module into an information playback device (via headphone, 112, Fig.1 with PMD) for consumption by a user. (*Gioscia*, Abstract, pg. 3, lines 3 – pg. 4, lines 1-16)

6. *Gioscia* teaches a personal music device that allows a user to electronically store readable information. Furthermore, *Gioscia* teaches of the user selectively recalling a portion of the information and listening to the recalled

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portion via headphones connected to the personal music device. The personal music device is small enough that can be worn by a user on the user's wrist or clipped to a user's clothing. (*Gioscia*, pg. 7, lines 34 – pg. 9, lines 1-7)

7. *Gioscia's* personal music device implements a limited memory component capable of storing readable information, however, *Gioscia* is silent in respect to the storage component being an atomic resolution storage memory component. Applicant's specification explained an atomic resolution storage memory component as a non-volatile memory storage device capable of storing a large volume of data within a relatively small storage area such as a pendant. (Specification, pg. 4, lines 6-13) *Gibson* teaches the use of atomic resolution storage memory component (high density storage device) that is capable of storing a large volume of data within a relatively small storage area.

8. It would have been obvious to one of ordinary skill at the time the invention was made to replace *Gioscia's* limited memory component (*Gioscia*, pg. 10, lines 3 – 12) and implement *Gibson's* atomic resolution storage memory component. Doing so would add and expand the flexibility to *Gioscia's* personal music device by increasing the storage density in *Gioscia's* personal music device thereby eliminating the constraints on the size of the memory component. (*Gibson*, col. 1, lines 52-63)

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9. As per claim 2, *Gioscia* teaches wherein the storing step further includes transferring the information from an external information source (101, Fig. 1) into the memory component of the storage module. (pg. 3, lines 3 – pg. 5, lines 1-20, 35 – pg. 6, lines 1- pg. 8, lines 1-20)

10. As per claim 4, *Gioscia* teaches wherein the storing step further comprises:

- providing multiple types of entertainments media (new clips, books or music, pg. 10, 3-12) as the electronically readable information;
- storing the entertainment media in the external information source; and
- providing the information for user-initiated wireless transfer from the external information source (101, Fig. 1) to the storage module. (pg. 3, lines 3 – pg. 5, lines 1-20, 35 – pg. 6, lines 1- pg. 8, lines 1-20)

11. As per claim 5, *Gioscia* teaches of repeating the storing step to capture additional electronically readable information into the memory component of the storage module.

12. As per claim 6, *Gioscia* does not teach wherein the information playback device includes a notebook computer. *Gioscia* teaches of providing the personal music device with playback capabilities when the headphones, 112, Fig.1, are connected. However, one of ordinary skill would readily recognize that *Gioscia-Gibson* would be motivated to utilize a notebook computer for its playback

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capabilities, because it would add and expand the flexibility of the if the personal music device.

13. As per claim 7, *Gioscia* teaches wherein the information playback device (headphones, 112, Fig.1) is an audio player (PMD).

14. As per claim 9, *Gioscia* teaches of containing the module within a housing and wearing the housing storage module on or about the body of a user. (pg. 9, lines 8-23)

15. As per claim 10, *Gioscia* teaches of arranging the storage module (contained in the personal music device) within a wristwatch or a clip that can be worn on the user. However, *Gioscia* does not teach of arranging the storage module within a neck worn pendent, a bracelet, a cellular phone, a pair of eyeglasses, an image display, a notebook computer, and an audio headset. Nonetheless, it would have been obvious to one of ordinary skill at the time the invention was made that it would not be out of the scope of *Gioscia's* personal music device to be implemented in a neck worn pendent, a bracelet, a pair of eyeglasses, or an audio headset; because, *Gioscia* already teaches of implementing the personal music device in a way that can be worn by the user. Furthermore, implementing the personal music device in a cellular phone, an image display, or a notebook computer would add and expand the flexibility of *Gioscia's* personal music device.

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16. As per claim 11, *Gioscia* teaches the storing step that provides the storage module with a communication interface (processor, 111, user input device, 113, receiver, 102, Fig. 1) and obviously a power supply.

17. As per claim 12, *Gioscia* teaches of providing the communication interface (processor, 111, user input device, 113, receiver, 102, Fig. 1) with a wireless communication path including infrared or radio frequency paths. (*Gioscia*, pg. 8, lines 12-20)

18. As per claim 13, *Gioscia-Gibson* teaches wherein the memory component further includes a controller (*Gibson*, Fig.1a) for operating the storage device and communication between the memory component and the communication interface. (*Gioscia*, processor, 111, user input device, 113, receiver, 102, Fig. 1).

19. As per claim 14, *Gioscia* obviously performs the storing step and the recalling step in a broadband frequency format. (*Gioscia*, pg. 8, lines 12-20)

20. As per claim 15, *Gioscia* teaches a portable entertainment storage module (personal music device [PMD], 103, Fig.1) comprising:

- a storage device including a storage memory component (110, Fig.1) capable of storing at least one entertainment media packet (audio files received by wire line connection or wirelessly via receiver, 102, Fig.1); and

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- a communication interface (processor, 111, user input device, 113, receiver, 102, Fig. 1) for communicating to and from the memory component of the storage module (pg. 3, lines 3 – pg. 4, lines 1-16, pg. 7, lines 34 – pg. 9, lines 1-7)

21. *Gioscia* teaches a personal music device that allows a user to download entertainment media such as audio books or recordings. The entertainment media is transmitted either wirelessly (infrared) or a wire line connection. Further, *Gioscia* teaches of the personal music device including an interface for communicating with the entertainment media stored in the memory component. However, *Gioscia* is silent in respect to the storing device including an atomic resolution storage memory.

22. *Gibson* teaches the use of atomic resolution storage memory component (high density storage device) that is capable of storing a large volume of data within a relatively small storage area.

23. It would have been obvious to one of ordinary skill at the time the invention was made to replace *Gioscia's* limited memory component (*Gioscia*, pg. 10, lines 3 – 12) and implement *Gibson's* atomic resolution storage memory component. Doing so would add and expand the flexibility to *Gioscia's* personal music device by increasing the storage density in *Gioscia's* personal music

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device thereby eliminating the constraints on the size of the memory component.

(*Gibson*, col. 1, lines 52-63)

24. As per claim 16, *Gioscia* teaches wherein the communication interface includes wireless communication technology via receiver, 102, Fig.1.

25. As per claim 17, *Gioscia* teaches wherein the wireless communication technology includes at least one of a radio frequency communicator and an infrared bandwidth communicator. (*Gioscia*, pg. 8, lines 12-20)

26. As per claim 18, *Gioscia* teaches of further comprising at least one of a microphone, a speaker, an input keypad (113, Fig. 1), and a display (114, Fig.1) for communicating with the memory component of the storage device via the communication interface. (*Gioscia*, pg. 8, lines 12-20)

27. As per claims 19 and 23, *Gibson* teaches wherein the storage device further includes a logic controller. Furthermore, *Gibson* teaches of a controller located on the atomic resolution storage device.

28. As per claims 20 and 21, *Gioscia* teaches wherein the entertainment packet includes at least one audio element and that the audio element is a music CD. (*Gioscia*, pg. 10, lines 3-9)

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29. As per claim 22, *Gioscia* teaches wherein the entertainment packet includes at least one printed media in the form of electronic audio book.

30. As per claim 24, *Gibson* teaches wherein the atomic resolution storage device further comprises:

- a field emitter (102, 104, Fig. 1a) fabricated by semiconductor microfabrication techniques capable of generating an electron beam current; (col. 2, lines 27-30) and
- a storage medium (106, 108, Fig. 1a) in proximity to the field emitter and having a storage area in one of a plurality of states to represent the information stored in the storage area. (*Gibson*, col. 2, lines 1-26, col. 3, lines 15-20, col. 5, lines 65-67, col. 9, lines 1-11)

31. As per claim 25, *Gibson* teaches wherein an effect is generated when the electron beam current bombards the storage area, wherein the magnitude of the effect depends upon the state of the storage area, and wherein the information stored in a storage area is read by measuring the magnitude of the effect. (*Gibson*, col. 2, lines 15-19, col. 5, lines 67-col. 6, lines 1-9, col. 9, lines 1-11)

32. As per claim 26, *Gibson* teaches wherein the atomic resolution storage device further comprises:

- a plurality of storage areas on the storage medium (106, 108, Fig. 1a), with each storage area being similar to the one recited in claim 24; and

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- a microfabricated mover (110, Fig. 1a) in the storage device to position different storage areas to be bombarded by the electron beam current.
(*Gibson*, col. 2, lines 1-30, col. 3, lines 15-20, col. 5, lines 65-67)

33. As per claim 27, *Gibson* teaches wherein the atomic resolution storage device further comprises:

- a plurality of field emitters, with each emitter being similar to the one recited in claim 24, the plurality of field emitters being spaced apart, with each emitter being responsible for a number of storage areas on the storage medium; and
- such that a plurality of the field emitter can work in parallel to increase the data rate of the storage device.

34. As per claim 28, *Gibson-Gioscia* teaches a housing that encloses the ultra-high capacity storage device (*Gibson*, Fig.1a) and the communication interface (*Gioscia*, processor, 111, user input device, 113, receiver, 102, Fig. 1).

35. As per claim 29, *Gioscia* teaches an information transfer and consumption system comprising:

- a portable entertainment media storage module (personal music device [PMD], 103, Fig.1) comprising:
 - an storage device (110, Fig.1) capable of storing at least one entertainment media packet (audio files); and

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- a communication interface (processor, 111, user input device, 113, receiver, 102, Fig. 1) for communicating to and from the storage device;
- an information library of multiples types (new clips, books or music, pg. 10, 3-12) of entertainment media stored as electronically readable information including:
 - a master memory module (108, Fig. 1) storing a collection of entertainment media; and
 - a communication interface (transmitter, 104, user input device, 106, processor, 107, Fig. 1) for selectively transferring a copy of a selection of the entertainment media collection from the information library to the storage device of the portable entertainment media storage modules; and
- an entertainment media playback device (headphones, 112, Fig.1) for retrieving the entertainment media from the storage device of the module and for making the entertainment media available in a consumable format.
(pg. 3, lines 3 – pg. 5, lines 1-20, 35 – pg. 6, lines 1- pg. 8, lines 1-20)

36. However, *Gioscia* is silent in respect to the storing device including an atomic resolution storage memory. *Gibson* teaches the use of atomic resolution storage memory component (high density storage device) that is capable of storing a large volume of data within a relatively small storage area.

37. It would have been obvious to one of ordinary skill at the time the invention was made to replace *Gioscia's* limited memory component (*Gioscia*, pg. 10, lines 3 – 12) and implement *Gibson's* atomic resolution storage memory component. Doing so would add and expand the flexibility to *Gioscia's* personal music device by increasing the storage density in *Gioscia's* personal music device thereby eliminating the constraints on the size of the memory component. (*Gibson*, col. 1, lines 52-63)

38. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Gioscia et al.* (WO 00/30117) and *Gibson et al.* (US 5,557,596).

39. As per claim 8, *Gioscia* teaches wherein the electronically readable information is at least one of a book (audio book) or part of a music collection. However, *Gioscia* is silent in respect to the electronically readable information being a movie. *Gioscia* teaches of downloading an audio book, it would not be out of the scope of the invention to download a movie's soundtrack. Therefore, one of ordinary skill in the art would be motivated to download a movie or parts thereof. Alternatively, it would have been obvious to one of ordinary skill that video players are well known in the art. Therefore, one of ordinary skill in the art would be motivated to download a movie or parts thereof to be consumed by the user via a video player.

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40. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Gioscia et al.* (WO 00/30117) and *Gibson et al.* (US 5,557,596) as applied to claim 1 above, and further in view of *Gioscia et al.* (US 6,407,750).

41. As per claim 3, *Gioscia* (WO 00/30117) teaches the transferring step of selecting at least one of a stationary entertainment library but is silent in respect to an internet website as the external information source.

42. However, *Gioscia* ('750) teaches of a portable storage module (col. 3, lines 17-19) that has a transferring step of selecting an Internet website as an external information source. (*Gioscia* ('750), col. 2, lines 20-30) It would have been obvious to one of ordinary skill to include *Gioscia* ('750) transferring step into the *Gioscia-Gibson* system. Doing so would expand the flexibility of the *Gioscia-Gibson* by allowing the user greater excess to media the user desires. (*Gioscia* ('750), col. 1, lines 51-55)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammara Peyton whose telephone number is (703) 306-5508. The examiner can normally be reached between 6:30 - 4:00 from Monday to Thursday, (I am off every first Friday), and 6:30-3:00 every second Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin, can be reached on (703) 308-3301. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3718. Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Mailed responses to this action should be sent to:

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Faxes for Official/formal communications intended for entry should be sent to:

(703) 746-7238, After Final (703) 746-7239

or, for informal or draft communications, to:

(703) 746-7240 (please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to:

Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor

(Receptionist).



Tammara Peyton

March 21, 2003